

Contact: Kate Masters Phone: (02) 9228 6321 Fax: (02) 9228 6466

Email: kate.masters@planning.nsw.gov.au

Ms Carol Ng SUEZ Locked Bag 5015 Kingsgrove NSW 2208

Dear Ms Ng

State Significant Development – Secretary's Environmental Assessment Requirements (SEARs) Extension of the SUEZ Wetherill Park Resource Recovery Facility (SSD 7267)

Thank you for your request for SEARs dated 9 September 2015 for the preparation of an Environmental Impact Statement (EIS) for the above mentioned development proposal. A copy of the SEARs is attached.

The attached SEARs have been prepared in consultation with the relevant government authorities and Fairfield City Council (see **Attachment 2**) and are based on the information you have provided to date. Please note that the Secretary may alter these SEARs at any time and that you must consult further with the Secretary if you do not lodge a development application and EIS for the development within two years of the date of issue of these SEARs. The Department of Planning and Environment (the Department) will review the EIS for the development carefully before publicly exhibiting it, and will require you to submit an amended EIS if it does not adequately address the SEARs.

The Department notes that the site currently operates under a separate consent. The Department prefers operations like the Wetherill Park Resource Recovery Facility to operate under a single, modern planning approval. Consequently, the Department encourages you to develop the project with this preference in mind, and to consider surrendering all of the existing planning approvals for the facility if the project is approved.

I wish to emphasise the importance of effective and genuine community consultation and the need for proposals to proactively respond to the community's concerns. Accordingly a comprehensive, detailed and genuine community consultation and engagement process must be undertaken during preparation of the EIS. This process must ensure that the community is both informed of the proposal and is actively engaged in issues of concern to them. Sufficient information must be provided to the community so that it has a good understanding of what is being proposed and of the potential impacts.

If your development is likely to have a significant impact on matters of National Environmental Significance, it will require an approval under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). This approval would be in addition to any approvals required under NSW legislation and it is

your responsibility to contact the Department of Environment to determine if an approval under the EPBC Act is required (http://www.environment.gov.au or 6274 1111).

I would appreciate it if you would contact the Department at least two weeks before you propose to submit the development application and EIS for your development. This will enable the Department to:

- confirm the applicable fee (see Division 1AA, Part 15 of the Environmental Planning and Assessment Regulation 2000); and
- determine the number of copies (hard-copy and CD-ROM) of the EIS that will be required for reviewing purposes.

If you have any enquiries about these requirements, please contact Kate Masters, Planning Services at the Department on (02) 9228 6321 or via email at kate.masters@planning.nsw.gov.au

Yours sincerely

Chris Ritchie

Director

Industry Assessments as delegate of the Secretary

Secretary's Environmental Assessment Requirements

Section 78A(8A) of the *Environmental Planning and Assessment Act*Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*

Application Number	SSD 7267		
Development	Increase the putrescible waste handling capacity of the Wetherill Park Resource Recovery Facility from 10,000 tonnes per annum (tpa) to 140,000 tpa. The proposal also includes consolidation with existing non-putrescible operations, extension of the existing surge pit, installation of walking floor technology, reconfiguration of on-site traffic and parking and a new workshop and storage area.		
Location	20 Davis Road, Wetherill Park (Lot 402 DP 603454)		
Applicant	SUEZ		
Date of Issue 6	October 2015		
General Requirements	operations, extension of the existing surge pit, installation of walking flottechnology, reconfiguration of on-site traffic and parking and a new worksh and storage area. 20 Davis Road, Wetherill Park (Lot 402 DP 603454) SUEZ October 2015		

- a detailed calculation of the capital investment value (as defined in clause 3 of the Environmental Planning and Assessment Regulation 2000) of the proposal, including details of all assumptions and components from which the CIV calculation is derived;
- a close estimate of the jobs that will be created by the development during the construction and operational phases of the development; and certification that the information provided is accurate at the date of preparation.

Key issues

The EIS must address the following specific matters:

Waste Management – including:

- a detailed description of the likely waste streams that would be handled, stored and processed at the facility including maximum volumes of each type of waste to be stored onsite at any one time and the maximum throughput of each waste type;
- the likely waste processing operations, including likely technology and resource outputs, and the quality control measures that would be implemented;
- details of how this waste would be stored and handled on site, and transported to and from the site including details of how the receipt of non-conforming waste would be dealt with;
- details of the proposed location and size of stockpiles of unprocessed and processed recycled waste on the site;
- the measures that would be implemented to ensure that the development is consistent with the aims, objectives and guidance in the NSW Waste Avoidance and Resource Recovery Strategy 2014-2021:

Air Quality and Odour – including:

- a quantitative assessment of the potential air quality, dust and odour impacts of the project on surrounding landowners in accordance with relevant EPA guidelines;
- a greenhouse gas assessment; and
- details of proposed mitigation, management and monitoring measures.

Traffic and Transport – including:

- details of all traffic types and volumes likely to be generated during construction and operation, including a description of haul routes;
- an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model;
- detailed plans of the proposed layout of the internal road network and parking on site in accordance with the relevant Australian standards; and
- detailed plans of any proposed road upgrades, infrastructure works or new roads required for the development.

Noise – including:

- a quantitative assessment of potential construction, operational and transport noise and vibration impacts, including potential impacts on nearby noise sensitive receivers; and
- details and justification of the proposed noise mitigation and monitoring measures.

Soil & Water – including:

- identification of water and soil resources, drainage lines, watercourses and riparian lands;
- the proposed erosion and sediment controls during construction;
- a detailed site water balance, including identification of water requirements for the life of the project, measures that would be implemented to ensure an adequate and secure water supply is available for the proposal and a detailed description of the measures to minimise the water use at the site;
- potential impacts on watercourses and groundwater;
- the proposed stormwater/wastewater/leachate management systems

,		
	 including the capacity of onsite detention systems, and measures to treat, reuse or dispose of water; and consideration of any potential salinity, soil contamination, flooding and acid sulfate soil impacts of the project. Hazards – including: a preliminary risk screening undertaken in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33) and Applying SEPP 33 (DoP, 2011), and if necessary, a Preliminary Hazard Analysis (PHA); and an assessment of the likely toxicity levels of loads transported to and from the site. Visual – including an assessment of the potential visual impacts of the project on the amenity of the surrounding area. Socio-economic – including and assessment of the economic and social impacts of the development, particularly of any benefits to the community. 	
Plans and Documents	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environment Planning and Assessment Regulation 2000. These documents should be included as part of the EIS rather than as separate documents.	
Consultation	During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with: Fairfield City Council; Environmental Protection Authority; Department of Primary Industries; Roads and Maritime Service; Transgrid; and the surrounding land owners and occupiers that may be affected by the proposal. The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.	
Further consultation after 2 years	If you do not lodge an EIS for the development within 2 years of the issue date of these SEAR's, you must consult with the Secretary in relation to the requirements for lodgement.	
References	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, the following attachment contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this development.	

ATTACHMENT 1

Technical and Policy Guidelines

The following guidelines may assist in the preparation of the Environmental Impact Statement. This list is not exhaustive and not all of these guidelines may be relevant to your proposal.

Many of these documents can be found on the following websites:

http://www.planning.nsw.gov.au http://www.bookshop.nsw.gov.au http://www.publications.gov.au

Policies, Guidelines & Plans

Plans and Documents

The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000. Provide these as part of the EIS rather than as separate documents.

In addition, the EIS must include the following:

- 1. An existing site survey plan drawn at an appropriate scale illustrating:
- the location of the land, boundary measurements, area (sq. m) and north point;
- the existing levels of the land in relation to buildings and roads;
- location and height of existing structures on the site;
- · location and height of adjacent buildings and private open space; and
- all levels to be to Australian Height Datum (AHD).
- 2. A locality/context plan drawn at an appropriate scale should be submitted indicating:
- watercourses including nearby rivers and creeks, and dams;
- significant local features such as heritage items;
- the location and uses of nearby buildings, shopping and employment areas, hospitals and schools; and
- traffic and road patterns, pedestrian routes and public transport nodes.
- 3. An indication of the location of the site with respect to the relevant Land Zoning Map within the Shoalhaven Local Environment Plan 2014.
- 4. Drawings at an appropriate scale illustrating:
- detailed plans, sections and elevations of the existing building, which clearly show all proposed internal and external alterations and additions.

Documents to be submitted

Documents to submit include:

- 1 electronic copy of all the documents and plans for review prior to exhibition; and
- other copies as determined by the Department once the development application is lodged.

Technical and Policy Guidelines

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Policies, Guidelines & Plans

Aspect	Policy /Methodology
Waste	
	Waste Avoidance and Resource Recovery Strategy 2010-2021 (EPA)
	The National Waste Policy: Less Waste More Resources 2009
	Waste Classification Guidelines (DECC)
	Environmental guidelines: Composting and Related Organics Processing
	Facilities (DEC)
	Environmental guidelines: Use and Disposal of Biosolid Products (NSW EPA)
	Composts, soil conditioners and mulches (Standards Australia, AS 4454)
Air Quality	
•	Protection of the Environment Operations (Clean Air) Regulation 2010
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW
	(DEC)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC
Odour	
	Technical Framework: Assessment and Management of Odour from Stationary
	Sources in NSW (DEC)
	Technical Notes: Assessment and Management of Odour from Stationary
	Sources in NSW (DEC)
Transport	
	Guide to Traffic Generating Development (RTA)
	Road Design Guide (RTA)
Noise	
	NSW Industrial Noise Policy (DECC)
	NSW Road Noise Policy (EPA, 2011)
	Environmental Criteria for Road Traffic Noise (NSW EPA)
	Interim Construction Noise Guideline (2009)
Soil and Water	
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC & NHMRC)
	National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPC)
Soil	Draft Guidelines for the Assessment & Management of Groundwater Contamination (DECC)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Managing Land Contamination – Planning Guidelines SEPP 55 – Remediation o Land (DOP)
	Acid Sulfate Soils Manual (Stone et al. 1998)
	National Water Quality Management Strategy: Water quality management - an
	outline of the policies (ANZECC/ARMCANZ)
	NSW Guidelines for Controlled Activities on Waterfront Land (NOW, 2012)
0 (14/-1	National Water Quality Management Strategy: Policies and principles - a reference document (ANZECC/ARMCANZ)
Surface Water	National Water Quality Management Strategy: Implementation guidelines
	(ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Australian Guidelines for Fresh ar
	Marine Water Quality (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Australian Guidelines for Water

	Quality Monitoring and Reporting (ANZECC/ARMCANZ)				
	Using the ANZECC Guideline and Water Quality Objectives in NSW (DEC)				
	NSW State Rivers and Estuaries Policy(1993)				
	State Water Management Outcomes Plan				
	NSW Government Water Quality and River Flow Environmental Objectives (DECC)				
	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC)				
	Managing Urban Stormwater: Soils & Construction (Landcom)				
	Managing Urban Stormwater: Treatment Techniques (DECC)				
	Managing Urban Stormwater: Source Control (DECC)				
	Technical Guidelines: Bunding & Spill Management (DECC)				
	NSW Floodplain Development Manual 2005				
	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)				
	Australian Groundwater Modelling Guidelines (NWC, 2012)				
Groundwater	NSW State Groundwater Policy Framework Document (DLWC)				
	NSW State Groundwater Quality Protection Policy (DLWC)				
	NSW State Groundwater Dependent Ecosystems Policy (2002)				
	NSW State Groundwater Quantity Management Policy (DLWC) Draft				
	Guidelines for the Assessment and Management of Groundwater Contamination (DEC, 2007)				
Hazards					
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development				
	Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (DUAP)				
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis				
Greenhouse Gas					
	The National Greenhouse and Energy Reporting (Measurement) Technical Guidelines (NGER Technical Guidelines)				
	Guidelines for Energy Savings Action Plans (DEUS, 2005)				
Visual					
	Control of Obtrusive Effects of Outdoor Lighting (Standards Australia, AS 4282)				
	State Environmental Planning Policy No 64 - Advertising and Signage				

ATTACHMENT 2

Public Authority Responses to Request for Key Issues



Department of Planning and Environment SYDNEY NSW 2001

Attention: David Mooney

Notice Number

1534353

File Number

EF13/5384

Date

29-Sep-2015

Secretary's Environment Assessment Requirements

Proposed increase for putrescible waste at existing waste transfer station at 20 Davis Road, Wetherill Park (SSD 7267)

I refer to your request for the Environment Protection Authority's (EPA) requirements for the environmental assessment (EA) in regard to the above proposal received by EPA on 11 September 2015.

The EPA has considered the details of the proposal as provided by NSW Department of Planning & Environment and has identified the information it requires to issue its general terms of approval in Attachment A. In summary, the EPA's key information requirements for the proposal include an adequate assessment of:

- 1. The management, processing and storage of waste received at the Premises.
- 2. Options for disposal and/or reuse waste generated at the Premises;
- 3. Impacts on water quality;
- 4. Potential dust issues during construction and operations at the Premises;
- 5. Potential odour issues during operations at the Premises; and
- 6. Potential noise impacts during construction and operation at the Premises.

In carrying out the assessment, the proponent should refer to the relevant guidelines as listed in Attachment B and any relevant industry codes of practice and best practice management guidelines.

Please note that this response does not cover biodiversity or Aboriginal cultural heritage issues, which are the responsibility of the Office of Environment and Heritage.

The Proponent should be made aware that any commitments made in the EIS may be formalised as approval conditions and may also be placed as formal licence conditions.



The Proponent should be made aware that, consistent with provisions under Part 9.4 of the *Protection of the Environment Operations Act 1997* ("the Act") the EPA may require the provision of an increased financial assurance at the Premises. The amount and form of the assurance(s) would be determined by the EPA and required as a condition of an Environment Protection Licence ("EPL").

In addition, as a requirement of an EPL, the EPA will require the Proponent to prepare, test and implement a Pollution Incident Response Management Plan and/or Plans in accordance with Section 153A of the Act.

The EPA notes that the proponent proposes to increase the existing annual throughput of 10,000 tpa to 140,000 tpa of general solid waste (putrescible). The EPA has had issues with odours at 20 Davis Rd Wetherill Park in the past and reminds the proponent the EIS needs to adequately address the potential odour generation from the increased storage and processing of putrescible waste at the facility including details of any new infrastructure/pollution controls and how they will prevent odours from the facility impacting the local community.

The EPA requests one hard copy of the EIS for assessment. This document should be provided to the EPA, Senior Manager Waste Compliance, PO Box A290 Sydney South NSW 1232. The EPA also requests an electronic copy be sent to waste.operations@epa.nsw.gov.au - attention Josh Madden.

Yours sincerely

Trevor Wilson

Unit Head

Waste & Resources - Waste Management

(by Delegation)



ATTACHMENT A: EIS REQUIREMENTS FOR

Proposed increase for putrescible waste at existing waste transfer station at 20 Davis Road, Wetherill Park (SSD 7267)

How to use these requirements

The EPA requirements have been structured in accordance with the DIPNR EIS Guidelines, as follows. It is suggested that the EIS follow the same structure:

- A. Executive summary
- B. The proposal
- C. The location
- Identification and prioritisation of issues
- E. The environmental issues
- F. List of approvals and licences
- G. Compilation of mitigation measures
- H. Justification for the proposal



A Executive summary

The executive summary should include a brief discussion of the extent to which the proposal achieves identified environmental outcomes.

B The proposal

1. Objectives of the proposal

- The objectives of the proposal should be clearly stated and refer to:
 - a) the size and type of the operation, the nature of the processes and the products, by-products and wastes produced
 - b) a life cycle approach to the production, use or disposal of products
 - c) the anticipated level of performance in meeting required environmental standards and cleaner production principles
 - d) the staging and timing of the proposal and any plans for future expansion
 - e) the proposal's relationship to any other industry or facility.

2. Description of the proposal

General

- Outline the production process including:
 - a) the environmental "mass balance" for the process quantify in-flow and out-flow of materials, any points of discharge to the environment and their respective destinations (sewer, stormwater, atmosphere, recycling, landfill etc)
 - b) any life-cycle strategies for the products.
- Outline cleaner production actions, including:
 - a) measures to minimise waste (typically through addressing source reduction)
 - b) proposals for use or recycling of by-products
 - c) proposed disposal methods for solid and liquid waste
 - d) air management systems including all potential sources of air emissions, proposals to re-use or treat emissions, emission levels relative to relevant standards in regulations, discharge points
 - e) water management system including all potential sources of water pollution, proposals for re-use, treatment etc, emission levels of any wastewater discharged, discharge points, summary of options explored to avoid a discharge, reduce its frequency or reduce its impacts, and rationale for selection of option to discharge.
 - f) soil contamination treatment and prevention systems.
- Outline construction works including:
 - a) actions to address any existing soil contamination



- any earthworks or site clearing; re-use and disposal of cleared material (including use of spoil on-site)
- c) construction timetable and staging; hours of construction; proposed construction methods
- d) environment protection measures, including noise mitigation measures, dust control measures and erosion and sediment control measures.

Air

- Identify all sources of air emissions from the development.
 Note: emissions can be classed as either:
 - point (eg emissions from stack or vent) or
 - fugitive (from wind erosion, leakages or spillages, associated with loading or unloading, conveyors, storage facilities, plant and yard operation, vehicle movements (dust from road, exhausts, loss from load), land clearing and construction works).
- Provide details of the project that are essential for predicting and assessing air impacts including:
 - a) the quantities and physio-chemical parameters (eg concentration, moisture content, bulk density, particle sizes etc) of materials to be used, transported, produced or stored
 - b) an outline of procedures for handling, transport, production and storage
 - c) the management of solid, liquid and gaseous waste streams with potential for significant air impacts.

Noise and vibration

- Identify all noise sources from the development (including both construction and operation phases).
 Detail all potentially noisy activities including ancillary activities such as transport of goods and raw materials.
- Specify the times of operation for all phases of the development and for all noise producing activities.
- For projects with a significant potential traffic noise impact provide details of road alignment (include gradients, road surface, topography, bridges, culverts etc), and land use along the proposed road and measurement locations – diagrams should be to a scale sufficient to delineate individual residential blocks.

Water

- Provide details of the project that are essential for predicting and assessing impacts to waters:
 - a) including the quantity and physio-chemical properties of all potential water pollutants and the risks they pose to the environment and human health, including the risks they pose to Water Quality Objectives in the ambient waters (as defined on http://www.environment.nsw.gov.au/ieo/index.htm, using technical criteria derived from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality, ANZECC 2000)
 - b) the management of discharges with potential for water impacts
 - drainage works and associated infrastructure; land-forming and excavations; working capacity of structures; and water resource requirements of the proposal.



- Outline site layout, demonstrating efforts to avoid proximity to water resources (especially for activities
 with significant potential impacts eg effluent ponds) and showing potential areas of modification of
 contours, drainage etc.
- Outline how total water cycle considerations are to be addressed showing total water balances for the
 development (with the objective of minimising demands and impacts on water resources). Include
 water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal,
 including type, volumes, proposed treatment and management methods and re-use options.

Waste and chemicals

- Provide details of the quantity and type of both liquid waste and non-liquid waste generated, handled, processed or disposed of at the premises. Waste must be classified according to the EPA's Waste Classification Guidelines 2014 (as amended from time to time).
- Provide details of liquid waste and non-liquid waste management at the facility, including:
 - a) the transportation, assessment and handling of waste arriving at or generated at the site
 - b) any stockpiling of wastes or recovered materials at the site
 - c) any waste processing related to the facility, including reuse, recycling, reprocessing (including composting) or treatment both on- and off-site
 - d) the method for disposing of all wastes or recovered materials at the facility
 - e) the emissions arising from the handling, storage, processing and reprocessing of waste at the facility
 - f) the proposed controls for managing the environmental impacts of these activities.
- Provide details of spoil disposal with particular attention to:
 - a) the quantity of spoil material likely to be generated
 - b) proposed strategies for the handling, stockpiling, reuse/recycling and disposal of spoil
 - c) the need to maximise reuse of spoil material in the construction industry
 - d) identification of the history of spoil material and whether there is any likelihood of contaminated material, and if so, measures for the management of any contaminated material
 - e) designation of transportation routes for transport of spoil.
- Provide details of procedures for the assessment, handling, storage, transport and disposal of all
 hazardous and dangerous materials used, stored, processed or disposed of at the site, in addition to
 the requirements for liquid and non-liquid wastes.
- Provide details of the type and quantity of any chemical substances to be used or stored and describe arrangements for their safe use and storage.
- Reference should be made to the guidelines: EPA's Waste Classification Guidelines 2014 (as amended from time to time).

ESD

• Demonstrate that the planning process and any subsequent development incorporates objectives and mechanisms for achieving ESD, including:



- a) an assessment of a range of options available for use of the resource, including the benefits of each option to future generations
- b) proper valuation and pricing of environmental resources
- c) identification of who will bear the environmental costs of the proposal.

3. Rehabilitation

 Outline considerations of site maintenance, and proposed plans for the final condition of the site (ensuring its suitability for future uses).

4. Consideration of alternatives and justification for the proposal

- Consider the environmental consequences of adopting alternatives, including alternative:
 - a) sites and site layouts
 - b) access modes and routes
 - c) materials handling and production processes
 - d) waste and water management
 - e) impact mitigation measures
 - f) energy sources
- Selection of the preferred option should be justified in terms of:
 - a) ability to satisfy the objectives of the proposal
 - b) relative environmental and other costs of each alternative
 - c) acceptability of environmental impacts and contribution to identified environmental objectives
 - d) acceptability of any environmental risks or uncertainties
 - e) reliability of proposed environmental impact mitigation measures
 - f) efficient use (including maximising re-use) of land, raw materials, energy and other resources.



C The location

1. General

- Provide an overview of the affected environment to place the proposal in its local and regional environmental context including:
 - a) meteorological data (eg rainfall, temperature and evaporation, wind speed and direction)
 - b) topography (landform element, slope type, gradient and length)
 - c) surrounding land uses (potential synergies and conflicts)
 - d) geomorphology (rates of landform change and current erosion and deposition processes)
 - e) soil types and properties (including erodibility; engineering and structural properties; dispersibility; permeability; presence of acid sulfate soils and potential acid sulfate soils)
 - f) ecological information (water system habitat, vegetation, fauna)
 - g) availability of services and the accessibility of the site for passenger and freight transport.

2. Air

- Describe the topography and surrounding land uses. Provide details of the exact locations of dwellings, schools and hospitals. Where appropriate provide a perspective view of the study area such as the terrain file used in dispersion models.
- Describe surrounding buildings that may effect plume dispersion.
- Provide and analyse site representative data on following meteorological parameters:
 - a) temperature and humidity
 - b) rainfall, evaporation and cloud cover
 - c) wind speed and direction
 - d) atmospheric stability class
 - e) mixing height (the height that emissions will be ultimately mixed in the atmosphere)
 - f) katabatic air drainage
 - g) air re-circulation.

3. Noise and vibration

- Identify any noise sensitive locations likely to be affected by activities at the site, such as residential
 properties, schools, churches, and hospitals. Typically the location of any noise sensitive locations in
 relation to the site should be included on a map of the locality.
- Identify the land use zoning of the site and the immediate vicinity and the potentially affected areas.



4. Water

Describe the catchment including proximity of the development to any waterways and provide an
assessment of their sensitivity/significance from a public health, ecological and/or economic
perspective. The Water Quality and River Flow Objectives on the website:
 http://www.environment.nsw.gov.au/ieo/index.htm should be used to identify the agreed environmental
values and human uses for any affected waterways. This will help with the description of the local and
regional area.

5. Soil Contamination Issues

Provide details of site history – if earthworks are proposed, this needs to be considered with regard to
possible soil contamination, for example if the site was previously a landfill site or if irrigation of effluent
has occurred.



D Identification and prioritisation of issues / scoping of impact assessment

- Provide an overview of the methodology used to identify and prioritise issues. The methodology should take into account:
 - a) relevant NSW government guidelines
 - b) industry guidelines
 - c) EISs for similar projects
 - d) relevant research and reference material
 - e) relevant preliminary studies or reports for the proposal
 - f) consultation with stakeholders.
- Provide a summary of the outcomes of the process including:
 - a) all issues identified including local, regional and global impacts (eg increased/ decreased greenhouse emissions)
 - b) key issues which will require a full analysis (including comprehensive baseline assessment)
 - c) issues not needing full analysis though they may be addressed in the mitigation strategy
 - d) justification for the level of analysis proposed (the capacity of the proposal to give rise to high concentrations of pollution compared with the ambient environment or environmental outcomes is an important factor in setting the level of assessment).

E The environmental issues

1. General

- The potential impacts identified in the scoping study need to be assessed to determine their significance, particularly in terms of achieving environmental outcomes, and minimising environmental pollution.
- Identify gaps in information and data relevant to significant impacts of the proposal and any actions
 proposed to fill those information gaps so as to enable development of appropriate management and
 mitigation measures. This is in accordance with ESD requirements.

Note: The level of detail should match the level of importance of the issue in decision making which is dependent on the environmental risk.

Describe baseline conditions

Provide a description of existing environmental conditions for any potential impacts.



Assess impacts

- For any potential impacts relevant for the assessment of the proposal provide a detailed analysis of the impacts of the proposal on the environment including the cumulative impact of the proposal on the receiving environment especially where there are sensitive receivers.
- Describe the methodology used and assumptions made in undertaking this analysis (including any
 modelling or monitoring undertaken) and indicate the level of confidence in the predicted outcomes and
 the resilience of the environment to cope with the predicted impacts.
- The analysis should also make linkages between different areas of assessment where necessary to
 enable a full assessment of environmental impacts eg assessment of impacts on air quality will often
 need to draw on the analysis of traffic, health, social, soil and/or ecological systems impacts; etc.
- The assessment needs to consider impacts at all phases of the project cycle including: exploration (if relevant or significant), construction, routine operation, start-up operations, upset operations and decommissioning if relevant.
- The level of assessment should be commensurate with the risk to the environment.

Describe management and mitigation measures

- Describe any mitigation measures and management options proposed to prevent, control, abate or
 mitigate identified environmental impacts associated with the proposal and to reduce risks to human
 health and prevent the degradation of the environment. This should include an assessment of the
 effectiveness and reliability of the measures and any residual impacts after these measures are
 implemented.
- Proponents are expected to implement a 'reasonable level of performance' to minimise environmental impacts. The proponent must indicate how the proposal meets reasonable levels of performance. For example, reference technology based criteria if available, or identify good practice for this type of activity or development. A 'reasonable level of performance' involves adopting and implementing technology and management practices to achieve certain pollutant emissions levels in economically viable operations. Technology-based criteria evolve gradually over time as technologies and practices change.
- Use environmental impacts as key criteria in selecting between alternative sites, designs and technologies, and to avoid options having the highest environmental impacts.
- Outline any proposed approach (such as an Environmental Management Plan) that will demonstrate how commitments made in the EIS will be implemented. Areas that should be described include:
 - a) operational procedures to manage environmental impacts
 - b) monitoring procedures
 - c) training programs
 - d) community consultation
 - e) complaint mechanisms including site contacts
 - f) strategies to use monitoring information to improve performance
 - g) strategies to achieve acceptable environmental impacts and to respond in event of exceedences.



4. Air

Describe baseline conditions

 Provide a description of existing air quality and meteorology, using existing information and site representative ambient monitoring data.

Assess impacts

- Identify all pollutants of concern and estimate emissions by quantity (and size for particles), source and discharge point.
- Estimate the resulting ground level concentrations of all pollutants. Where necessary (eg. potentially significant impacts and complex terrain effects), use an appropriate dispersion model to estimate ambient pollutant concentrations. Discuss choice of model and parameters with the EPA.
- Describe the effects and significance of pollutant concentration on the environment, human health, amenity and regional ambient air quality standards or goals.
- Describe the contribution that the development will make to regional and global pollution, particularly in sensitive locations.
- For potentially odorous emissions provide the emission rates in terms of odour units (determined by techniques compatible with EPA procedures). Use sampling and analysis techniques for individual or complex odours and for point or diffuse sources, as appropriate.
 - Note: With dust and odour, it may be possible to use data from existing similar activities to generate emission rates.
- Reference should be made to: Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC, 2001); Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC, 2007); Assessment and Management of Odour from Stationary Sources in NSW (DEC, 2006); Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW (DEC, 2006); Load Calculation Protocol for use by holders of NSW Environment Protection Licences when calculating Assessable Pollutant Loads (DECC, 2009).

Describe management and mitigation measures

 Outline specifications of pollution control equipment (including manufacturer's performance guarantees where available) and management protocols for both point and fugitive emissions. Where possible, this should include cleaner production processes.

5. Noise and vibration

Describe baseline conditions

- Determine the existing background (LA90) and ambient (LAeq) noise levels in accordance with the NSW Industrial Noise Policy.
- Determine the existing road traffic noise levels in accordance with the NSW Environmental Criteria for Road Traffic Noise, where road traffic noise impacts may occur.



- The noise impact assessment report should provide details of all monitoring of existing ambient noise levels including:
 - a) details of equipment used for the measurements
 - b) a brief description of where the equipment was positioned
 - a statement justifying the choice of monitoring site, including the procedure used to choose the site, having regards to the definition of 'noise sensitive locations(s)' and 'most affected locations(s)' described in Section 3.1.2 of the NSW Industrial Noise Policy
 - d) details of the exact location of the monitoring site and a description of land uses in surrounding areas
 - e) a description of the dominant and background noise sources at the site
 - f) day, evening and night assessment background levels for each day of the monitoring period
 - g) the final Rating Background Level (RBL) value
 - h) graphs of the measured noise levels for each day should be provided
 - i) a record of periods of affected data (due to adverse weather and extraneous noise), methods used to exclude invalid data and a statement indicating the need for any re-monitoring under Step 1 in Section B1.3 of the NSW Industrial Noise Policy
 - j) determination of LAeq noise levels from existing industry.

Assess impacts

- Determine the project specific noise levels for the site. For each identified potentially affected receiver, this should include:
 - a) determination of the intrusive criterion for each identified potentially affected receiver
 - b) selection and justification of the appropriate amenity category for each identified potentially affected receiver
 - c) determination of the amenity criterion for each receiver
 - d) determination of the appropriate sleep disturbance limit.
- Maximum noise levels during night-time period (10pm-7am) should be assessed to analyse possible
 affects on sleep. Where LA1(1min) noise levels from the site are less than 15 dB above the
 background LA90 noise level, sleep disturbance impacts are unlikely. Where this is not the case,
 further analysis is required. Additional guidance is provided in Appendix B of the NSW Environmental
 Criteria for Road Traffic Noise.
- Determine expected noise level and noise character (eg tonality, impulsiveness, vibration, etc) likely to be generated from noise sources during:
 - a) site establishment
 - b) construction
 - c) operational phases
 - d) transport including traffic noise generated by the proposal
 - e) other services.

Note: The noise impact assessment report should include noise source data for each source in 1/1 or 1/3 octave band frequencies including methods for references used to determine noise source



levels. Noise source levels and characteristics can be sourced from direct measurement of similar activities or from literature (if full references are provided).

- Determine the noise levels likely to be received at the most sensitive locations (these may vary for
 different activities at each phase of the development). Potential impacts should be determined for any
 identified significant adverse meteorological conditions. Predicted noise levels under calm conditions
 may also aid in quantifying the extent of impact where this is not the most adverse condition.
- The noise impact assessment report should include:
 - a) a plan showing the assumed location of each noise source for each prediction scenario
 - b) a list of the number and type of noise sources used in each prediction scenario to simulate all potential significant operating conditions on the site
 - c) any assumptions made in the predictions in terms of source heights, directivity effects, shielding from topography, buildings or barriers, etc
 - d) methods used to predict noise impacts including identification of any noise models used. Where modelling approaches other than the use of the ENM or SoundPlan computer models are adopted, the approach should be appropriately justified and validated
 - e) an assessment of appropriate weather conditions for the noise predictions including reference to any weather data used to justify the assumed conditions
 - f) the predicted noise impacts from each noise source as well as the combined noise level for each prediction scenario under any identified significant adverse weather conditions as well as calm conditions where appropriate
 - g) for developments where a significant level of noise impact is likely to occur, noise contours for the key prediction scenarios should be derived
 - h) an assessment of the need to include modification factors as detailed in Section 4 of the NSW Industrial Noise Policy.
- Discuss the findings from the predictive modelling and, where relevant noise criteria have not been met, recommend additional mitigation measures.
- The noise impact assessment report should include details of any mitigation proposed including the attenuation that will be achieved and the revised noise impact predictions following mitigation.
- Where relevant noise/vibration criteria cannot be met after application of all feasible and cost effective mitigation measures the residual level of noise impact needs to be quantified by identifying:
 - a) locations where the noise level exceeds the criteria and extent of exceedence
 - b) numbers of people (or areas) affected
 - c) times when criteria will be exceeded
 - d) likely impact on activities (speech, sleep, relaxation, listening, etc)
 - e) change on ambient conditions
 - f) the result of any community consultation or negotiated agreement.
- For the assessment of existing and future traffic noise, details of data for the road should be included such as assumed traffic volume; percentage heavy vehicles by time of day; and details of the calculation process. These details should be consistent with any traffic study carried out in the EIS.
- Where blasting is intended an assessment in accordance with the Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration (ANZECC, 1990) should be undertaken. The following details of the blast design should be included in the noise assessment:
 - a) bench height, burden spacing, spacing burden ratio



- b) blast hole diameter, inclination and spacing
- c) type of explosive, maximum instantaneous charge, initiation, blast block size, blast frequency.

Describe management and mitigation measures

- Determine the most appropriate noise mitigation measures and expected noise reduction including both
 noise controls and management of impacts for both construction and operational noise. This will include
 selecting quiet equipment and construction methods, noise barriers or acoustic screens, location of
 stockpiles, temporary offices, compounds and vehicle routes, scheduling of activities, etc.
- For traffic noise impacts, provide a description of the ameliorative measures considered (if required), reasons for inclusion or exclusion, and procedures for calculation of noise levels including ameliorative measures. Also include, where necessary, a discussion of any potential problems associated with the proposed ameliorative measures, such as overshadowing effects from barriers. Appropriate ameliorative measures may include:
 - a) use of alternative transportation modes, alternative routes, or other methods of avoiding the new road usage
 - b) control of traffic (eg: limiting times of access or speed limitations)
 - c) resurfacing of the road using a quiet surface
 - d) use of (additional) noise barriers or bunds
 - e) treatment of the façade to reduce internal noise levels buildings where the night-time criteria is a major concern
 - f) more stringent limits for noise emission from vehicles (i.e. using specially designed 'quite' trucks and/or trucks to use air bag suspension
 - g) driver education
 - h) appropriate truck routes
 - i) limit usage of exhaust breaks
 - j) use of premium muffles on trucks
 - k) reducing speed limits for trucks
 - I) ongoing community liaison and monitoring of complaints
 - m) phasing in the increased road use.



4. Water

Describe baseline conditions

Describe existing surface and groundwater quality – an assessment needs to be undertaken for any
water resource likely to be affected by the proposal and for all conditions (e.g. a wet weather sampling
program is needed if runoff events may cause impacts).

Note: Methods of sampling and analysis need to conform with an accepted standard (e.g. Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC 2004) or be approved and analyses undertaken by accredited laboratories).

- Provide site drainage details and surface runoff yield.
- State the ambient Water Quality and River Flow Objectives for the receiving waters. These refer to the community's agreed environmental values and human uses endorsed by the Government as goals for the ambient waters. These environmental values are published on the website:

 <u>http://www.environment.nsw.gov.au/ieo/index.htm.</u>
 The EIS should state the environmental values listed for the catchment and waterway type relevant to your proposal. NB: A consolidated and approved list of environmental values are not available for groundwater resources. Where groundwater may be affected the EIS should identify appropriate groundwater environmental values and justify the choice.
- State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZECC 2000 *Guidelines for Fresh and Marine Water Quality* (http://www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html) (Note that, as at 2004, the NSW Water Quality Objectives booklets and website contain technical criteria derived from the 1992 version of the ANZECC Guidelines. The Water Quality Objectives remain as Government Policy, reflecting the community's environmental values and long-term goals, but the technical criteria are replaced by the more recent ANZECC 2000 Guidelines). NB: While specific guidelines for groundwater are not available, the ANCECC 2000 Guidelines endorse the application of the trigger values and decision trees as a tool to assess risk to environmental values in groundwater.
- State any locally specific objectives, criteria or targets, which have been endorsed by the government e.g. the Healthy Rivers Commission Inquiries or the NSW Salinity Strategy (DLWC, 2000) (http://www.environment.nsw.gov.au/salinity/government/nswstrategy.htm).
- Where site specific studies are proposed to revise the trigger values supporting the ambient Water
 Quality and River Flow Objectives, and the results are to be used for regulatory purposes (e.g. to
 assess whether a licensed discharge impacts on water quality objectives), then prior agreement from
 the EPA on the approach and study design must be obtained.
- Describe the state of the receiving waters and relate this to the relevant Water Quality and River Flow
 Objectives (i.e. are Water Quality and River Flow Objectives being achieved?). Proponents are
 generally only expected to source available data and information. However, proponents of large or high
 risk developments may be required to collect some ambient water quality / river flow / groundwater data
 to enable a suitable level of impact assessment. Issues to include in the description of the receiving
 waters could include:
 - a) lake or estuary flushing characteristics
 - b) specific human uses (e.g. exact location of drinking water offtake)
 - c) sensitive ecosystems or species conservation values
 - d) a description of the condition of the local catchment e.g. erosion levels, soils, vegetation cover, etc



- e) an outline of baseline groundwater information, including, but not restricted to, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment
- f) historic river flow data where available for the catchment.

Assess impacts

- No proposal should breach clause 120 of the Protection of the Environment Operations Act 1997 (i.e. pollution of waters is prohibited unless undertaken in accordance with relevant regulations).
- Identify and estimate the quantity of all pollutants that may be introduced into the water cycle by source and discharge point including residual discharges after mitigation measures are implemented.
- Include a rationale, along with relevant calculations, supporting the prediction of the discharges.
- Describe the effects and significance of any pollutant loads on the receiving environment. This should include impacts of residual discharges through modelling, monitoring or both, depending on the scale of the proposal. Determine changes to hydrology (including drainage patterns, surface runoff yield, flow regimes, wetland hydrologic regimes and groundwater).
- Describe water quality impacts resulting from changes to hydrologic flow regimes (such as nutrient enrichment or turbidity resulting from changes in frequency and magnitude of stream flow).
- Identify any potential impacts on quality or quantity of groundwater describing their source.
- Identify potential impacts associated with geomorphological activities with potential to increase surface
 water and sediment runoff or to reduce surface runoff and sediment transport. Also consider possible
 impacts such as bed lowering, bank lowering, instream siltation, floodplain erosion and floodplain
 siltation.
- Identify impacts associated with the disturbance of acid sulfate soils and potential acid sulfate soils.
- Containment of spills and leaks shall be in accordance with the technical guidelines section 'Bunding and Spill Management' of the Authorised Officers Manual (EPA, 1995)
 (http://www.epa.nsw.gov.au/mao/bundingspill.htm) and the most recent versions of the Australian Standards referred to in the Guidelines. Containment should be designed for no-discharge.
- The significance of the impacts listed above should be predicted. When doing this it is important to
 predict the ambient water quality and river flow outcomes associated with the proposal and to
 demonstrate whether these are acceptable in terms of achieving protection of the Water Quality and
 River Flow Objectives. In particular the following questions should be answered:
 - a) will the proposal protect Water Quality and River Flow Objectives where they are currently achieved in the ambient waters; and
 - b) will the proposal contribute towards the achievement of Water Quality and River Flow Objectives over time, where they are not currently achieved in the ambient waters.
- Consult with the EPA as soon as possible if a mixing zone is proposed (a mixing zone could exist where
 effluent is discharged into a receiving water body, where the quality of the water being discharged does
 not immediately meet water quality objectives. The mixing zone could result in dilution, assimilation and
 decay of the effluent to allow water quality objectives to be met further downstream, at the edge of the
 mixing zone). The EPA will advise the proponent under what conditions a mixing zone will and will not
 be acceptable, as well as the information and modelling requirements for assessment.

Note: The assessment of water quality impacts needs to be undertaken in a total catchment management context to provide a wide perspective on development impacts, in particular cumulative impacts.



- Where a licensed discharge is proposed, provide the rationale as to why it cannot be avoided through application of a reasonable level of performance, using available technology, management practice and industry guidelines.
- Where a licensed discharge is proposed, provide the rationale as to why it represents the best environmental outcome and what measures can be taken to reduce its environmental impact.
- Reference should be made to Managing Urban Stormwater: Soils and Construction (DECC, 2008), Guidelines for Fresh and Marine Water Quality ANZECC 2000), Environmental Guidelines: Use of effluent by Irrigation (DEC, 2004).

Describe management and mitigation measures

- Outline stormwater management to control pollutants at the source and contain them within the site. Also describe measures for maintaining and monitoring any stormwater controls.
- Outline erosion and sediment control measures directed at minimising disturbance of land, minimising
 water flow through the site and filtering, trapping or detaining sediment. Also include measures to
 maintain and monitor controls as well as rehabilitation strategies.
- Describe waste water treatment measures that are appropriate to the type and volume of waste water and are based on a hierarchy of avoiding generation of waste water; capturing all contaminated water (including stormwater) on the site; reusing/recycling waste water; and treating any unavoidable discharge from the site to meet specified water quality requirements.
- Outline pollution control measures relating to storage of materials, possibility of accidental spills (eg preparation of contingency plans), appropriate disposal methods, and generation of leachate.
- Describe hydrological impact mitigation measures including:
 - a) site selection (avoiding sites prone to flooding and waterlogging, actively eroding or affected by deposition)
 - b) minimising runoff
 - c) minimising reductions or modifications to flow regimes
 - d) avoiding modifications to groundwater.
- Describe groundwater impact mitigation measures including:
 - a) site selection
 - b) retention of native vegetation and revegetation
 - c) artificial recharge
 - d) providing surface storages with impervious linings
 - e) monitoring program.
- Describe geomorphological impact mitigation measures including:
 - a) site selection
 - b) erosion and sediment controls
 - c) minimising instream works
 - d) treating existing accelerated erosion and deposition
 - e) monitoring program.
- Any proposed monitoring should be undertaken in accordance with the Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC 2004).



5. Soils and contamination

Describe baseline conditions

Provide any details (in addition to those provided in the location description - Section C) that are needed
to describe the existing situation in terms of soil types and properties and soil contamination.

Assess impacts

- Identify any likely impacts resulting from the construction or operation of the proposal, including the likelihood of:
 - a) disturbing any existing contaminated soil
 - b) contamination of soil by operation of the activity
 - c) subsidence or instability
 - d) soil erosion
 - e) disturbing acid sulfate or potential acid sulfate soils.
- Reference should be made to Contaminated Sites Guidelines for Consultants Reporting on Contaminated Sites (OEH, 2011); Contaminated Sites – Guidelines on Significant Risk of Harm from Contaminated Land and the Duty to Report (EPA, 2003).

Describe management and mitigation measures

- Describe and assess the effectiveness or adequacy of any soil management and mitigation measures during construction and operation of the proposal including:
 - a) erosion and sediment control measures
 - b) proposals for site remediation see Managing Land Contamination, Planning Guidelines SEPP 55 Remediation of Land (Department of Urban Affairs and Planning and Environment Protection Authority, 1998)
 - c) proposals for the management of these soils see Assessing and Managing Acid Sulfate Soils, Environment Protection Authority, 1995 (note that this is the only methodology accepted by the EPA).

6. Waste and chemicals

Describe baseline conditions

Describe any existing waste or chemicals operations related to the proposal.

Assess impacts

 Assess the adequacy of proposed measures to minimise natural resource consumption and minimise impacts from the handling, transporting, storage, processing and reprocessing of waste and/or chemicals.



 Reference should be made to Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes (EPA, 1999)>.

Describe management and mitigation measures

- Outline measures to minimise the consumption of natural resources.
- Outline measures to avoid the generation of waste and promote the re-use and recycling and reprocessing of any waste.
- Outline measures to support any approved regional or industry waste plans.

7. Cumulative impacts

- Identify the extent that the receiving environment is already stressed by existing development and background levels of emissions to which this proposal will contribute.
- Assess the impact of the proposal against the long term air, noise and water quality objectives for the area or region.
- Identify infrastructure requirements flowing from the proposal (eg water and sewerage services, transport infrastructure upgrades).
- Assess likely impacts from such additional infrastructure and measures reasonably available to the proponent to contain such requirements or mitigate their impacts (eg travel demand management strategies).

F. List of approvals and licences

 Identify all approvals and licences required under environment protection legislation including details of all scheduled activities, types of ancillary activities and types of discharges (to air, land, water).

G. Compilation of mitigation measures

- Outline how the proposal and its environmental protection measures would be implemented and managed in an integrated manner so as to demonstrate that the proposal is capable of complying with statutory obligations under EPA licences or approvals (eg outline of an environmental management plan).
- The mitigation strategy should include the environmental management and cleaner production principles which would be followed when planning, designing, establishing and operating the proposal. It should include two sections, one setting out the program for managing the proposal and the other outlining the monitoring program with a feedback loop to the management program.

H. Justification for the Proposal

 Reasons should be included which justify undertaking the proposal in the manner proposed, having regard to the potential environmental impacts.



ATTACHMENT B: GUIDANCE MATERIAL

Title	Web address			
Relevant Legislation				
Contaminated Land Management Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+140+1997+cd+0+N			
Environmentally Hazardous Chemicals Act 1985	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+14+1985+cd+0+N			
Environmental Planning and Assessment Act 1979	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N			
Protection of the Environment Operations Act 1997	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N			
Water Management Act 2000	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N			
	Licensing			
Guide to Licensing	www.epa.nsw.gov.au/licensing/licenceguide.htm			
	Air Issues			
Air Quality				
Approved methods for modelling and assessment of air pollutants in NSW (2005)	http://www.epa.nsw.gov.au/resources/air/ammodelling05361.pdf			
POEO (Clean Air) Regulation 2010	http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+428+2010+cd+0+N			
	Noise and Vibration			
Interim Construction Noise Guideline (DECC, 2009)	http://www.epa.nsw.gov.au/noise/constructnoise.htm			
Assessing Vibration: a technical guideline (DEC, 2006)	http://www.epa.nsw.gov.au/noise/vibrationguide.htm			
Industrial Noise Policy Application Notes	http://www.epa.nsw.gov.au/noise/applicnotesindustnoise.htm			
Environmental Criteria for Road Traffic Noise (EPA, 1999)	http://www.epa.nsw.gov.au/resources/noise/roadnoise.pdf			
Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects (DECC, 2007)	http://www.epa.nsw.gov.au/noise/railinfranoise.htm			
Environmental assessment requirements for rail traffic-generating developments	http://www.epa.nsw.gov.au/noise/railnoise.htm			



Waste, Chemicals and Hazardous Materials and Radiation				
Waste				
Environmental Guidelines: Solid Waste	http://www.epa.nsw.gov.au/resources/waste/envquidlns/solidlandfill			
Landfills (EPA, 1996)	<u>.pdf</u>			
Draft Environmental Guidelines -	http://www.epa.nsw.gov.au/resources/waste/envguidIns/industrialfill			
Industrial Waste Landfilling (April 1998)	<u>.pdf</u>			
Waste Classification Guidelines (EPA, 2014)	http://www.epa.nsw.gov.au/wasteregulation/classify-guidelines.htm			
Resource recovery exemption	http://www.epa.nsw.gov.au/waste/RRecoveryExemptions.htm			
Chemicals subject to Chemical Control Orders				
Chemical Control Orders (regulated through the EHC Act)	http://www.epa.nsw.gov.au/pesticides/CCOs.htm			
National Protocol - Approval/Licensing of Trials of Technologies for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries			
National Protocol for Approval/Licensing of Commercial Scale Facilities for the Treatment/Disposal of Schedule X Wastes - July 1994	Available in libraries			
	Water and Soils			
Acid sulphate soils				
Coastal acid sulfate soils guidance material	http://www.environment.nsw.gov.au/acidsulfatesoil/			
Acid Sulfate Soils Planning Maps	http://www.environment.nsw.gov.au/acidsulfatesoil/riskmaps.htm			
Contaminated Sites Assessment and Remediation				
Managing land contamination: Planning Guidelines – SEPP 55 Remediation of Land	http://www.planning.nsw.gov.au/assessingdev/pdf/qu_contam.pdf			
Guidelines for Consultants Reporting on Contaminated Sites (EPA, 2000)	http://www.epa.nsw.gov.au/resources/clm/20110650consultantsgli es.pdf			
Guidelines for the NSW Site Auditor	http://www.epa.nsw.gov.au/resources/clm/auditorglines06121.pdf			
Scheme - 2nd edition (DEC, 2006)				
Sampling Design Guidelines (EPA, 1995)	Available by request from EPA's Environment Line			



National Environment Protection (Assessment of Site Contamination) Measure 1999 (or update)	http://www.scew.gov.au/nepms/assessment-site-contamination
Soils – general	
Managing land and soil	http://www.environment.nsw.gov.au/soils/landandsoil.htm
Managing urban stormwater for the protection of soils	http://www.environment.nsw.gov.au/stormwater/publications.htm
Landslide risk management guidelines	http://www.australiangeomechanics.org/resources/downloads/
Site Investigations for Urban Salinity (DLWC, 2002)	http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf
Local Government Salinity Initiative Booklets	http://www.environment.nsw.gov.au/salinity/solutions/urban.htm
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	http://www.environment.gov.au/water/publications/quality/nwqms-guidelines-4-vol1.html
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	Contact the EPA on 131555
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	http://www.environment.nsw.gov.au/resources/legislation/approved methods-water.pdf





OUT15/26582

Mr David Mooney
Industry Assessments
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

David.Mooney@planning.nsw.gov.au

Dear Mr Mooney,

SUEZ Waste Transfer Station Capacity Increase, Wetherill Park (SSD_7267) Request for input into Secretary's Environmental Assessment Requirements

I refer to your email dated 11 September 2015 to the Department of Primary Industries in respect to the above matter.

Comment by DPI Water

DPI Water has reviewed the supporting documentation accompanying the request for Secretary's Environmental Assessment Requirements (SEARs) and provides the following comments, and further detail in **Attachment A**.

It is recommended that the EIS be required to include:

- Annual volumes of surface water and groundwater proposed to be taken by the activity (including through inflow and seepage) from each surface and groundwater source as defined by the relevant water sharing plan.
- Assessment of any volumetric water licensing requirements (including those for ongoing water take following completion of the project).
- The identification of an adequate and secure water supply for the life of the project. Confirmation that water can be sourced from an appropriately authorised and reliable supply. This is to include an assessment of the current market depth where water entitlement is required to be purchased.
- A detailed and consolidated site water balance.
- Assessment of impacts on surface and ground water sources (both quality and quantity), related infrastructure, adjacent licensed water users, basic landholder rights, watercourses, riparian land, and groundwater dependent ecosystems, and measures proposed to reduce and mitigate these impacts.
- Full technical details and data of all surface and groundwater modelling.

- Proposed surface and groundwater monitoring activities and methodologies.
- Assessment of discharge and runoff impacts to receiving watercourses.
- Assessment of any potential cumulative impacts on water resources, and any proposed options to manage the cumulative impacts.
- Consideration of relevant policies and guidelines.
- A statement of where each element of the SEARs is addressed in the EIS (i.e. in the form of a table).

For further information please contact Richard Meares, Water Regulation Officer (Parramatta Office) on 02 8838 7527 or at richard.meares@dpi.nsw.gov.au.

DPI Lands, DPI Water and DPI Agriculture advise no issues.

Yours sincerely

Mitchell Isaacs

Director, Planning Policy & Assessment Advice

Attachment A

SUEZ Waste Transfer Station Capacity Increase, Wetherill Park (SSD_7267) Request for Input into Secretary's Environment Assessment Requirements DPI Water General Assessment Requirements for general projects

The following detailed assessment requirements are provided to assist in adequately addressing the assessment requirements for this proposal.

For further information visit the DPI Water website, www.water.nsw.gov.au

Key Relevant Legislative Instruments

This section provides a basic summary to aid proponents in the development of an Environmental Impact Statement (EIS), and should not be considered a complete list or comprehensive summary of relevant legislative instruments that may apply to the regulation of water resources for a project.

The EIS should take into account the objects and regulatory requirements of the *Water Act 1912* (WA 1912) and *Water Management Act 2000* (*WMA 2000*), and associated regulations and instruments, as applicable.

Water Management Act 2000 (WMA 2000) Key points:

- Volumetric licensing in areas covered by water sharing plans.
- Works within 40m of waterfront land.
- SSD & SSI projects are exempt from requiring water supply work approvals and controlled activity approvals as a result of the Environmental Planning & Assessment Act 1979 (EP&A Act).
- No exemptions for volumetric licensing apply as a result of the EP&A Act.
- Basic landholder rights, including harvestable rights dams.
- Aquifer interference activity approval and flood management work approval provisions have not yet commenced and are regulated by the Water Act 1912.
- Maximum penalties of \$2.2 million plus \$264,000 for each day an offence continues apply under the WMA 2000.

Water Act 1912 (WA 1912)

Key points:

- Volumetric licensing in areas where no water sharing plan applies.
- Monitoring bores.
- Aquifer interference activities that are not regulated as a water supply work under the WMA 2000.
- Flood management works.
- No exemptions apply to licences or permits under the WA 1912 as a result of the EP&A
 Act.
- Regulation of water bore driller licensing.

Water Management (General) Regulation 2011 Key points:

- Provides various exemptions for volumetric licensing and activity approvals.
- Provides further detail on requirements for dealings and applications.

Water Sharing Plans - these are considered regulations under the WMA 2000

Access Licence Dealing Principles Order 2004

Harvestable Rights Orders

Water Sharing Plans

It is important that the proponent understands and describes the ground and surface water sharing plans, water sources, and management zones that apply to the project. The relevant water sharing plans can be determined spatially at www.ourwater.nsw.gov.au. Multiple water sharing plans may apply and these must all be described.

The Water Act 1912 applies to all water sources not yet covered by a commenced water sharing plan.

The EIS is required to:

- Demonstrate how the proposal is consistent with the relevant rules of the Water Sharing
 Plan including rules for access licences, distance restrictions for water supply works and
 rules for the management of local impacts in respect of surface water and groundwater
 sources, ecosystem protection (including groundwater dependent ecosystems), water
 quality and surface-groundwater connectivity.
- Provide a description of any site water use (amount of water to be taken from each water source) and management including all sediment dams, clear water diversion structures with detail on the location, design specifications and storage capacities for all the existing and proposed water management structures.
- Provide an analysis of the proposed water supply arrangements against the rules for access licences and other applicable requirements of any relevant WSP, including:
 - Sufficient market depth to acquire the necessary entitlements for each water source.
 - Ability to carry out a "dealing" to transfer the water to relevant location under the rules of the WSP.
 - o Daily and long-term access rules.
 - Account management and carryover provisions.
- Provide a detailed and consolidated site water balance.
- Further detail on licensing requirements is provided below.

Relevant Policies and Guidelines

The EIS should take into account the following policies (as applicable):

- NSW Guidelines for Controlled Activities on Waterfront Land (NOW, 2012)
- NSW Aquifer Interference Policy (NOW, 2012)
- Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NOW, 2012)
- Australian Groundwater Modelling Guidelines (NWC, 2012)
- NSW State Rivers and Estuary Policy (1993)
- NSW Wetlands Policy (2010)
- NSW State Groundwater Policy Framework Document (1997)
- NSW State Groundwater Quality Protection Policy (1998)
- NSW State Groundwater Dependent Ecosystems Policy (2002)
- NSW Water Extraction Monitoring Policy (2007)

DPI Water policies can be accessed at the following links:

http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/default.aspx http://www.water.nsw.gov.au/Water-licensing/Approvals/Controlled-activities/default.aspx An assessment framework for the NSW Aquifer Interference Policy can be found online at: http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/Aquifer-interference.

Licensing Considerations

The EIS is required to provide:

- Identification of water requirements for the life of the project in terms of both volume and timing (including predictions of potential ongoing groundwater take following the cessation of operations at the site – such as evaporative loss from open voids or inflows).
- Details of the water supply source(s) for the proposal including any proposed surface water and groundwater extraction from each water source as defined in the relevant Water Sharing Plan/s and all water supply works to take water.
- Explanation of how the required water entitlements will be obtained (i.e. through a new or existing licence/s, trading on the water market, controlled allocations etc.).
- Information on the purpose, location, construction and expected annual extraction volumes including details on all existing and proposed water supply works which take surface water, (pumps, dams, diversions, etc).
- Details on all bores and excavations for the purpose of investigation, extraction, dewatering, testing and monitoring. All predicted groundwater take must be accounted for through adequate licensing.
- Details on existing dams/storages (including the date of construction, location, purpose, size and capacity) and any proposal to change the purpose of existing dams/storages.
- Details on the location, purpose, size and capacity of any new proposed dams/storages.
- Applicability of any exemptions under the Water Management (General) Regulation 2011 to the project.

Water allocation account management rules, total daily extraction limits and rules governing environmental protection and access licence dealings also need to be considered.

The Harvestable Right gives landholders the right to capture and use for any purpose 10% of the average annual runoff from their property. The Harvestable Right has been defined in terms of an equivalent dam capacity called the Maximum Harvestable Right Dam Capacity (MHRDC). The MHRDC is determined by the area of the property (in hectares) and a site-specific run-off factor. The MHRDC includes the capacity of all existing dams on the property that do not have a current water licence. Storages capturing up to the harvestable right capacity are not required to be licensed but any capacity of the total of all storages/dams on the property greater than the MHRDC may require a licence.

For more information on Harvestable Right dams, including a calculator, visit: http://www.water.nsw.gov.au/Water-licensing/Basic-water-rights/Harvesting-runoff/Harvesting-runoff

Dam Safety

Where new or modified dams are proposed, or where new development will occur below an existing dam, the NSW Dams Safety Committee should be consulted in relation to any safety issues that may arise. Conditions of approval may be recommended to ensure safety in relation to any new or existing dams.

See <u>www.damsafety.nsw.gov.au</u> for further information. **Surface Water Assessment**

The predictive assessment of the impact of the proposed project on surface water sources should include the following:

- Identification of all surface water features including watercourses, wetlands and floodplains transected by or adjacent to the proposed project.
- Identification of all surface water sources as described by the relevant water sharing plan.
- Detailed description of dependent ecosystems and existing surface water users within the area, including basic landholder rights to water and adjacent/downstream licensed water users.
- Description of all works and surface infrastructure that will intercept, store, convey, or otherwise interact with surface water resources.
- Assessment of predicted impacts on the following:
 - o flow of surface water, sediment movement, channel stability, and hydraulic regime,
 - water quality,
 - o flood regime,
 - o dependent ecosystems,
 - o existing surface water users, and
 - o planned environmental water and water sharing arrangements prescribed in the relevant water sharing plans.

Groundwater Assessment

To ensure the sustainable and integrated management of groundwater sources, the EIS needs to include adequate details to assess the impact of the project on all groundwater sources.

Where it is considered unlikely that groundwater will be intercepted or impacted (for example by infiltration), a brief site assessment and justification for the minimal impacts may be sufficient, accompanied by suitable contingency measures in place in the event that groundwater is intercepted, and appropriate measures to ensure that groundwater is not contaminated.

Where groundwater is expected to be intercepted or impacted, the following requirements should be used to assist the groundwater assessment for the proposal.

- The known or predicted highest groundwater table at the site.
- Works likely to intercept, connect with or infiltrate the groundwater sources.
- Any proposed groundwater extraction, including purpose, location and construction details
 of all proposed bores and expected annual extraction volumes.
- Bore construction information is to be supplied to DPI Water by submitting a "Form A" template. DPI Water will supply "GW" registration numbers (and licence/approval numbers if required) which must be used as consistent and unique bore identifiers for all future reporting.
- A description of the watertable and groundwater pressure configuration, flow directions and rates and physical and chemical characteristics of the groundwater source (including connectivity with other groundwater and surface water sources).
- Sufficient baseline monitoring for groundwater quantity and quality for all aquifers and GDEs to establish a baseline incorporating typical temporal and spatial variations.
- The predicted impacts of any final landform on the groundwater regime.
- The existing groundwater users within the area (including the environment), any potential impacts on these users and safeguard measures to mitigate impacts.

- An assessment of groundwater quality, its beneficial use classification and prediction of any impacts on groundwater quality.
- An assessment of the potential for groundwater contamination (considering both the impacts of the proposal on groundwater contamination and the impacts of contamination on the proposal).
- Measures proposed to protect groundwater quality, both in the short and long term.
- Measures for preventing groundwater pollution so that remediation is not required.
- Protective measures for any groundwater dependent ecosystems (GDEs).
- Proposed methods of the disposal of waste water and approval from the relevant authority.
- The results of any models or predictive tools used.

Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:

- Any proposed monitoring programs, including water levels and quality data.
- Reporting procedures for any monitoring program including mechanism for transfer of information.
- An assessment of any groundwater source/aquifer that may be sterilised from future use as a water supply as a consequence of the proposal.
- Identification of any nominal thresholds as to the level of impact beyond which remedial
 measures or contingency plans would be initiated (this may entail water level triggers or a
 beneficial use category).
- Description of the remedial measures or contingency plans proposed.
- Any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period.

Groundwater Dependent Ecosystems

The EIS must consider the potential impacts on any Groundwater Dependent Ecosystems (GDEs) at the site and in the vicinity of the site and:

- Identify any potential impacts on GDEs as a result of the proposal including:
 - o the effect of the proposal on the recharge to groundwater systems;
 - o the potential to adversely affect the water quality of the underlying groundwater system and adjoining groundwater systems in hydraulic connections; and
 - o the effect on the function of GDEs (habitat, groundwater levels, connectivity).
- Provide safeguard measures for any GDEs.

Watercourses, Wetlands and Riparian Land

The EIS should address the potential impacts of the project on all watercourses likely to be affected by the project, existing riparian vegetation and the rehabilitation of riparian land. It is recommended the EIS provides details on all watercourses potentially affected by the proposal, including:

- Scaled plans showing the location of:
 - o wetlands/swamps, watercourses and top of bank;
 - o riparian corridor widths to be established along the creeks,
 - o existing riparian vegetation surrounding the watercourses (identify any areas to be protected and any riparian vegetation proposed to be removed);

- the site boundary, the footprint of the proposal in relation to the watercourses and riparian areas; and
- o proposed location of any asset protection zones.
- Photographs of the watercourses/wetlands and a map showing the point from which the photos were taken.
- A detailed description of all potential impacts on the watercourses/riparian land.
- A detailed description of all potential impacts on the wetlands, including potential impacts to the wetlands hydrologic regime; groundwater recharge; habitat and any species that depend on the wetlands.
- A description of the design features and measures to be incorporated to mitigate potential impacts.
- Geomorphic and hydrological assessment of water courses including details of stream order (Strahler System), river style and energy regimes both in channel and on adjacent floodplains.

Landform rehabilitation

Where significant modification to landform is proposed, the EIS must include:

- Justification of the proposed final landform with regard to its impact on local and regional surface and groundwater systems;
- A detailed description of how the site would be progressively rehabilitated and integrated into the surrounding landscape;
- Outline of proposed construction and restoration of topography and surface drainage features if affected by the project; and
- An outline of the measures to be put in place to ensure that sufficient resources are available to implement the proposed rehabilitation.

Consultation and general enquiries

General licensing enquiries can be made to Advisory Services: water.enquiries@dpi.nsw.gov.au, 1800 353 104.

Assessment or state significant development enquiries, or requests for review or consultation should be directed to the Strategic Stakeholder Liaison Unit, water.referrals@dpi.nsw.gov.au.

A consultation guideline and further information is available online at: www.water.nsw.gov.au/water-management/law-and-policy/planning-and-assessment

End Attachment A

Kate Masters

From:

Andrew Mooney <AMooney@fairfieldcity.nsw.gov.au>

Sent:

Tuesday, 29 September 2015 4:04 PM

To:

Kate Masters

Subject:

RE: URGENT - Request for SEARs - 20 Davis Road, Wetherill Park (SSD 7267)

Fairfield LGA

Hi Kate

Council requests that the following matters be addressed in regard to the above SEARs

- Council records indicate the site is affected by overland flooding. Further details can be obtained by
 requesting a s.149 certificate from Council. The impacts of overland flooding will need to be taken into
 account in the design of the proposal to ensure there are no adverse cumulative impacts on properties both
 up-stream and down-stream of the site. The applicant needs to engage a suitably qualified hydraulic
 engineer to carry out this task.
- Information clarifying the relationship of the project to the provisions of SEPP 33 Hazardous and Offensive Development
- Risk assessment of the potential environmental impacts of the proposal
- details on how the proposal will achieve compliance with relevant standards and guidelines for this form of development published by the NSW EPA
- Exact transport routes proposed to be utilized for the transfer of materials to/from the site
- Assessment of the potential visual impacts of the proposal on surrounding properties

Regards

Andrew Mooney

Coordinator |Strategic Planning City and Community Development

PO Box 21, Fairfield NSW 1860 P 9725 0214 | F 9725 4249 www.fairfieldcity.nsw.gov.au



Fairfield City Council





From: Kate Masters [mailto:Kate.Masters@planning.nsw.gov.au]

Sent: Monday, 28 September 2015 12:17 PM

To: planning.matters@environment.nsw.gov.au; development.sydney@rms.nsw.gov.au; Mail Mail **Subject:** URGENT - Request for SEARs - 20 Davis Road, Wetherill Park (SSD 7267) Fairfield LGA

Importance: High

Kate Masters

From: Leo Belinda <Belinda.Leo@environment.nsw.gov.au>

Sent: Wednesday, 16 September 2015 2:44 PM

To: 'David Mooney'

Subject: Request for SEARS for Waste Transfer Station at 20 Davis Road, Wetherill Park (SSD

7267).

Dear Mr Mooney

Thank you for your email dated 11 September 2015 to the Office of Environment and Heritage (OEH) requesting input into the Secretary's Environmental Assessment Requirements for the proposed increase in capacity for putrescible waste at the existing Waste Transfer Station at 20 Davis Road, Wetherill Park (SSD 7267).

After reviewing the relevant documents, OEH's Greater Sydney Planning Team has concluded that the matter does not contain biodiversity, natural hazards and Aboriginal Cultural Heritage issues that require a formal OEH response. We have no need to be further involved in the assessment of the project.

Regards Belinda

Belinda Leo

Operations Officer, Greater Sydney Region
Regional Operations Group, Office of Environment and Heritage
Level 6, 10 Valentine Ave Parramatta (PO Box 644) NSW 2124
T: 9995 6820 W: www.environment.nsw.gov.au
Please note I do not work Thursday or Fridays